

# 17/ Appeal Brief  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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APPLICANT(s): SHAW ET AL.

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APPELLANTS' BRIEF

Adjustment date: 07/05/2002  
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This is an appeal from the final rejection of claims 1-27 in the above-identified application. Claims 1-27 are listed in Appendix I. A Notice of Appeal was mailed on November 21, 2001. The fees required under 37 C.F.R. §1.17 are being submitted herewith. This brief is being submitted in triplicate. Please charge deposit account 16-1350 for any fee deficiency.

I. REAL PARTY IN INTEREST

The real party in interest in this Appeal is:

Nokia Mobile Phones Limited.

## II. RELATED APPEALS AND INTERFERENCES

There are no directly related appeals or interferences regarding this Application.

## III. STATUS OF CLAIMS

Claims 1-27 are pending in this application. Pending claims 1-27 have been finally rejected by the Examiner. Attached to this Brief is Appendix I (the rejected claims). It is the rejection of claims 1-27 that is being appealed.

## IV. STATUS OF THE AMENDMENTS

Since the final rejection of June 5, 2001 no further amendments have been filed in this application.

## V. SUMMARY OF INVENTION

According to a primary embodiment of the invention there is provided a portable radio telephone having an antenna which can be pivoted between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane. The portable radio telephone has an advantage in that the antenna can be moved to a first position ideal for making voice calls, and then to a second position ideal for storing the telephone in a pocket or placing it on a flat surface.

Preferably, in this second position the profile of the radio telephone is minimized. The antenna of the portable radio telephone projects from a surface of the telephone housing in both the first position and the second position. Thus, a user can easily pivot the antenna from the first position to the second position or vice versa. Having the antenna projecting from the surface of the telephone housing in both the first position and the second position may also improve performance of the antenna by providing a better radiation pattern compared to an antenna not projecting from a surface.

The antenna may be pivotable to one or more stable positions, preferably two stable positions. The antenna may also be biased towards and/or releasably locked in the stable positions. Ideally in a first stable position the antenna is generally upright and in a second position the antenna is generally slanted, angled or canted relative to the main body of the telephone. A user of the telephone may have the antenna of the telephone in the upright position most of the time. However, when a call is received by the telephone the antenna may be manually or automatically be pivoted to the angled position for the duration of the call. Equally when the user initiates a call the antenna may be manually or automatically pivoted to the angled position for the duration of the call.

In one defined preferred embodiment of the invention the surface from which the antenna projects from is an end surface of the telephone. Ideally the surface is a top surface of the telephone. In another defined preferred embodiment of the invention the antenna is attached to the telephone by a hinge arrangement which ensures that the antenna only pivots through an acute angle and in a single plane.

A portable telephone according to one clearly defined and claimed embodiment includes an antenna which can be pivoted about an axis between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane and through an acute angle, the antenna being biased and adapted to be locked as the antenna pivots. This embodiment is defined in claim 1 and specifically defines a portable telephone with an antenna, the antenna defined as being able to "only pivot" in a "single plane" and through "an acute angle" and "being biased" and "adapted to be locked as the antenna pivots".

Another embodiment is defined in claim 18 as a portable telephone that is adapted for single banded operation having a non-retracting antenna arranged to be pivoted about an axis between a first position in which it projects from a surface of the telephone and a second position in which it projects from a surface of the telephone, the antenna being arranged to pivot in a single plane and through an acute angle, the antenna being biased and adapted to be locked as the antenna pivots. As claimed, the antenna is arranged "to pivot in a single plane and through an acute angle" and the antenna "being biased" and is "adapted to be locked as the antenna pivots". Still another embodiment is defined in claim 21 as a portable telephone having an antenna which can be pivoted about an axis arranged internally of the telephone between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane and through an acute angle, the antenna being biased and adapted to be locked as the antenna pivots. Claim 21 defines "an antenna which can

be pivoted about an axis arranged internally of the telephone" in combination with an antenna that "may only pivot in a single plane" and "through an acute angle" and which is "biased and adapted to be locked as the antenna pivots".

Yet still another embodiment is defined in Claim 27 as a portable telephone having an antenna which can be pivoted about an axis between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane, the antenna being biased and adapted to be locked as the antenna pivots.

#### VI. ISSUES

1. Are Claims 1-27 unpatentable under 35 U.S.C. 103(a) over Rydbeck (U.S. Patent No. 5,590,416) in view of Podgorny (UK Patent Application 2,018,033A)?

#### VII. GROUPING OF CLAIMS

The claims do not stand or fall together. There are five (5) groups of claims herein. The groups are as follows:

Group I - Claims 1-17

Group 2 - Claims 18-20

Group 3 - Claims 21-22

Group 4 - Claims 23-26

Group 5 - Claim 27

In accordance with 37 C.F.R. 1.192(c) (7), an explanation of why the claims of the groups are believed to be separately patentable is contained in the argument section below.

VIII. ARGUMENT

1. Group 1 (Claims 1-17)

Claim 1 defines a portable radio telephone having an antenna wherein

1. the antenna is "biased"; and
2. the antenna can "only pivot" and
3. only pivot "in a single plane" and
4. "pivot through an acute angle" and
5. the antenna is "adapted to be locked".....as the antenna pivots.

Claim 1 defines a combination of all five (5) of the above described features for a portable radio telephone. Rydbeck discloses a cellular radio telephone including an antenna that is movable between a first position and a second position. In the first position, the antenna is substantially parallel to the face of the radiotelephone thereby reducing the profile of the radiotelephone. Accordingly, the radiotelephone may be easier to store in a confined space such as a shirt pocket. In the second position, the antenna is canted away from the face of the

radiotelephone thereby increasing the distance between the user's head and the antenna during use. Thus, the electromagnetic shielding caused by the user's head is reduced.

Appellant's invention relates to a portable radio telephone having a projecting antenna which may, for example, be a radio telephone such as a conventional handheld cellular telephone, or it may be a so-called smart radio telephone or personal organizer having radio frequency (RF) communication capabilities. According to appellant's invention there is provided a portable radio telephone having an antenna which can be pivoted between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane. The antenna is pivotable to one or more stable positions. The antenna is also biased toward and/or releasably locked in the stable positions. A user of the telephone may have the antenna of the telephone in the upright position most of the time. However, when a call is received by the telephone the antenna may be manually or automatically pivoted to an angled position for the duration of the call. Equally when the user initiates a call the antenna may be manually or automatically pivoted to the angled position for the duration of that call.

Appellants' invention seeks to provide an antenna that can be positioned so as to be relatively distant from a user's head due to problems which might otherwise be encountered with the head interfering with the transmission characteristics of the antenna. The simple solution to this problem would be to permanently position the antenna at an angle. However, when the phone is placed on a flat surface the phone rests in a rather

unstable position on the antenna causing it to wobble and exposing the antenna to the risk of damage if a force is exerted on the telephone.

What is probably confusing to the Examiner is the fact that the Rydbeck reference describes a radiotelephone with an antenna that addresses basically the same problem as the present invention. However, the means of achieving the end result is very different. It is respectfully submitted that the Examiner indicate where Rydbeck discloses or suggests a structure for an antenna that is biased and adapted to be locked as the antenna pivots. Rydbeck simply does not disclose such a mechanism. In fact, the antenna in Rydbeck is freely rotatable and may assume any position.

The phone disclosed in Rydbeck seeks to overcome a problem of positioning an antenna so that it is relatively distant from a user's head, rather than the problem of the phone being in an unstable position on a flat surface, as in accordance with Appellant's invention. The phone disclosed in Rydbeck seeks to overcome a problem by utilizing an antenna which can be rotated between a canted and a non-canted position. If Rydbeck's phone is placed on a flat surface, a downward force on the phone could damage the antenna. In accordance with Appellant's invention when the antenna moves in a single plane, this would not occur since a downward force on the phone would merely pivot the antenna to its first position without damaging the antenna. Appellant's design also permits single handed operation whereas in Rydbeck it would be necessary to hold the phone in one hand while rotating the antenna between its respective positions with the other hand.



Podgorny describes a support for a pivotable rod antenna 1 that comprises encased in a housing (5), a tip (2) of the antenna (1) and an antenna tilt locking device (10). The tip (2) of the antenna (1) is mounted so as to be pivotable about a transverse pivot and has a rounded base (3) with alternate projections (8) and recesses (9) formed around the profile thereof. The antenna tilt locking device (10) has detent members (11) which are spring-loaded towards the surfaces of respective recesses (9) and each have a round cross section in the pivoting plane of the antenna (1). Both detent members (11) are urged against the inner surface of the housing (5) by a separating member (12) mounted so as to be movable along the axis of the housing (5).

As the Examiner stated: "Rydbeck does not utilize a pivot to permit the single plane movement between the two positions, nor is the antenna biased and adapted to be locked as the antenna pivots." So it appears that what the Examiner has done is find some of the critical missing links from the Rydbeck reference and employed Appellant's disclosure as the glue needed to bound the various links together, i.e. the Examiner is using the improper hindsight obtained from Appellant's own disclosure in concluding that Appellant's invention is obvious. It is respectfully submitted that the approach taken to reject appellant's invention is quite improper, and clearly is against well established principals of law.

It is respectfully submitted that the ultimate determination of obviousness is a question of law. See *In re Leuders*, 111 F.3d 1569, 1571, 42 USPQ2d 1481, 1482 (Fed. Cir. 1997). The factual predicates underlying an obviousness determination include the scope and content of the prior art,

the differences between the prior art and the claimed invention, and the level of ordinary skill in the art. See *Monarch Knitting Mach. Corp v. Sulzer Morat GmbH*, 139 F.3d 877, 881, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998).

To reject claims in an application under section 103, an Examiner must show an un rebutted prima facie case of obviousness. See *In re Deuel*, 51 F. 3d 1552, 1557, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995). In the absence of a proper prima facie case of obviousness, an appellant who complies with the other statutory requirements is entitled to a patent. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). It is respectfully submitted that the Examiner has not met the correct legal burden as established by the courts to conclude that there is an un rebutted prima facie case of obviousness. Certainly proof of obviousness in this application in the form of the Rydbeck and Podgorny patents simply does not meet the required level of proof of obviousness without the impermissible hindsight obtained from appellant's disclosure. As the CAFC has stated in *In re Rouffet*, 47 USPQ2d 1453 (CAFC, 1998) at pages 1457 ad 1458:

As this court has state, "virtually all [inventions] are combinations of old elements." *Enviromental Design, Ltd. V. Union Oil Co.*, 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1982); see also *Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1579-80, 219 USPQ 8, 12 (Fed. Cir. 1983) ("Most, if not all, inventions are combinations and mostly of old elements.") Therefore an examiner may often find every element of a claims invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the

prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570, 38 USPQ2d 1551, 1554 (Fed. Cir. 1996).

To prevent the use of improper hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. (Emphasis Added)

This court has identified three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art and the knowledge of persons of ordinary skill in the art.

Because the board did not explain the specific understanding or principle within the knowledge of a skilled artisan that would motivate one with no knowledge of Rouffet's invention to make the combination, this court infers that the examiner selected these references with the assistance of hindsight. This court forbids the use of hindsight in the selection of references that comprise the case of obviousness. See *In re Gorman*, 933 F.2d 982, 986 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Lacking a motivation to combine references, the Board did not show a proper *prima facie* case of obviousness.

Furthermore, regarding a rejection under 35 U.S.C. 103(a) it is not realistic in deciding an obviousness question under 35 U.S.C. 103 to pick and choose from any one reference only so much of the reference as will support a given position, to the exclusion of other parts necessary to a full appreciation of what such references fairly suggest to one of ordinary skill in the art; the mere existence in the prior art of individual elements of a patented invention does not, without more, invalidate the patent under 35 U.S.C. 103; there must be

positive evidence that the bringing together of such elements would have been obvious to a person of ordinary skill in the art; it would reduce patent protection almost to nullity if an infringer could, in light of subsequent disclosure, combine prior art references and piece together portions earlier patents, while dropping other parts, and thereby invalidate new combination of old elements. - Colt Industries Operating Corp. v. Index-Werke KG, Hahn & Tessky (DC DistCol) 205 USPQ990.

Since the simple fact of the matter is that the prior art only discloses some of the elements of applicants claimed invention, and furthermore, since the prior art fails to disclose or suggest combining elements to form a portable radiotelephone having the unique combination of features as claimed in Claims 1-17, it is respectfully submitted that Claims 1-17 fail to disclose or suggest the invention. It is respectfully submitted that the prior art cited by the Examiner does not render appellant's invention obvious under the present state of how the courts have interpreted the requirements for a valid rejection under 35 U.S.C. 103 (a). Therefore, the Examiner's rejection of Claims 1-17 based upon Rydbeck in view of Podgorny should be reversed!

## 2. Group 2 (Claims 18-20)

Claim 18 defines a portable radio telephone adapted for single handed operation having a non-retracting antenna arranged to be pivoted about an axis similar to the combination of claimed features as in claim 1, i.e., (i) pivoted between a first position in which it projects and a second position; (ii) the antenna arranged to pivot in a single plane; (iii) pivot through an acute angle; (iv) the antenna being biased; and (v)

the antenna being adapted to be locked as the antenna pivots. Appellant submits that the prior art cited by the Examiner fails to disclose or suggest the unique combination of claimed features as defined in Claims 18-20 for basically the same reasons as given above regarding Claims 1-17. Therefore, the Examiner rejection of Claims 18-20 based upon Rydbeck in view of Podgorny should be reversed!

### 3. Group 3 (Claims 21-22)

Claim 21 defines a portable radiotelephone having an antenna which can be pivoted about an axis arranged internally of the telephone (i) between a first position and a second position from which it projects from the telephone; (ii) the antenna only pivoting in a single plane; (iii) only through an acute angle; (iv) the antenna being biased; and (v) the antenna being adapted to be locked as the antenna pivots. Appellant submits that the prior art cited by the Examiner fails to disclose or suggest the unique combination of claimed features as defined in Claims 21-22 for basically the same reasons as given above regarding Claims 1-17. Therefore, the Examiner's rejection of Claims 231-22 based upon Rydbeck in view of Podgorny should be reversed!

### 4. Group 4 (Claims 23-26)

Claims 23, 24, 25 and 26 in addition to the features of Claim 1, define:

an antenna that is neutrally biased in a partially canted position and on either side of this position is biased towards upright and fully canted positions, whereby the antenna is stable in the upright and the fully canted positions (Claim 23);

an antenna that is releasably locked in the upright position, and once released is biased towards a fully canted position whereby the antenna is stable in the upright and the fully canted position (Claim 24);

an antenna that is releasably locked in a fully canted position, and once released is biased toward the upright position whereby the antenna is stable in the upright and the fully canted positions (Claim 25); and

wherein the antenna is always biased towards a fully canted position whereby the antenna is stable in the fully canted position (Claim 26).

The prior art references cited by the Examiner fail to disclose or even suggest appellant's unique combination of claimed elements for a portable radiotelephone. Therefore, the Examiner's rejection of Claims 23-26 based upon Rydbeck in view of Podgorny should be reversed!

#### 5. Group 5 (Claim 27)

Claim 27 calls for a portable radiotelephone having an antenna which can be pivoted about an axis between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna (i) may only pivot in a single plane, (ii) the antenna being biased, and (iii) the antenna being adapted to be locked as the antenna pivots. Neither the Rydbeck nor the Podgorny patents whether considered by themselves or in any combination with one another disclose or suggest appellant's unique combination of claimed features for a portable telephone as defined in Claim 27. Therefore, the Examiners rejection of Claim 27 should be reversed based upon Rydbeck in view of Podgorny.

IX CONCLUSION

In view of the arguments presented above, it is respectfully requested that the Examiner's rejections of Claims 1-27 be reversed.

Respectfully submitted,

  
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IX. APPENDIX I

The texts of the claims involved in the appeal are:

1. A portable radio telephone having an antenna which can be pivoted about an axis between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane and through an acute angle, the antenna being biased and adapted to be locked as the antenna pivots.

2. A portable radio telephone as claimed in claim 1, wherein the antenna is pivotable to a first stable position.

3. A portable radio telephone as claimed in claim 2, wherein the antenna is biased towards the first stable position.

4. A portable radio telephone as claimed in claim 2, wherein the antenna is releasably locked in the first stable position.

5. A portable radio telephone as claimed in claim 2, wherein the antenna is pivotable to a second stable position.

6. A portable radio telephone as claimed in claim 5, wherein the antenna is biased towards the second stable position.



7. A portable radio telephone as claimed in claim 5, wherein the antenna is releasably locked in the second stable position.

8. A portable radio telephone as claimed in claim 2, wherein in the first stable position the antenna projects substantially parallel with a major axis of the main body portion.

9. A portable radio telephone as claimed in claim 2, wherein in the first stable position the antenna projects substantially perpendicular to the top surface of the main body portion.

10. A portable radio telephone as claimed in claim 2, wherein the profile of the radio telephone is minimised when the antenna is in the first stable position.

11. A portable radio telephone as claimed in claim 5 wherein in the second stable position the antenna is canted relative to a major axis of the main body portion.

12. A portable radio telephone as claimed in claim 1, wherein the single plane of rotation intersects the top surface of the main body portion.

13. A portable radio telephone as claimed in claim 1, wherein the single plane of rotation is substantially perpendicular to a front surface of the radio telephone.

14. A portable radio telephone as claimed in claim 1, wherein the antenna is a non-retracting helical antenna.

15. A portable radio telephone as claimed in claim 1, wherein the main body portion includes an earpiece positioned near the antenna.

16. A portable radio telephone as claimed in claim 1, wherein the main body portion includes a microphone positioned distant from the antenna.

17. A portable radio telephone as claimed in claim 1, wherein the antenna extends beyond the main body portion.

18. A portable radio telephone adapted for single handed operation having a non-retracting antenna arranged to be pivoted about an axis between a first position in which it projects from a surface of the telephone and a second position in which it projects from a surface of the telephone, the antenna being arranged to pivot in a single plane and through an acute angle, the antenna being biased and adapted to be locked as the antenna pivots.

19. A portable radio telephone as claimed in claim 18 wherein the antenna in the first position is stable and wherein the antenna is biased towards the first stable position.

20. A portable radio telephone as in claim 19 wherein the antenna in the second position is stable and wherein the antenna is biased towards the second stable position and wherein the

antenna is releasably locked in the first stable position or the second stable position.

21. A portable radio telephone having an antenna which can be pivoted about an axis arranged internally of the telephone between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane and through an acute angle, the antenna being biased and adapted to be locked as the antenna pivots.

22. The portable radio telephone of claim 21 further including stop members internally of the telephone for limiting the movement of the antenna through the acute angle.

23. The portable radio telephone of claim 1 wherein the antenna is neutrally biased in a partially canted position, and on either side of this position is biased towards upright and fully canted positions, whereby the antenna is stable in the upright and the fully canted positions.

24. The portable radio telephone of claim 1 wherein the antenna is releasably locked in the upright position, and once released is biased towards a fully canted position whereby the antenna is stable in the upright and the fully canted positions.

25. The portable radio telephone of claim 1 wherein the antenna is releasably locked in a fully canted position, and once released is biased towards the upright position whereby the antenna is stable in the upright and the fully canted positions.

26. The portable radio telephone of claim 1 wherein the antenna is always biased towards a fully canted position whereby the antenna is stable in the fully canted position.

27. A portable radio telephone having an antenna which can be pivoted about an axis between a first position in which it projects from a surface of the telephone, and a second position in which it projects from a surface of the telephone, whereby the antenna may only pivot in a single plane, the antenna being biased and adapted to be locked as the antenna pivots.